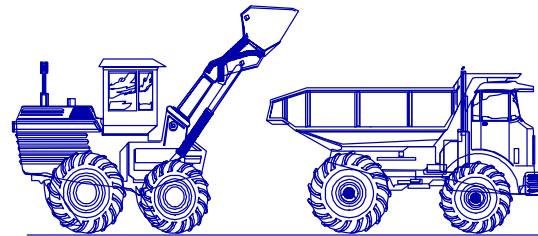


Heavy Equipment Operation



Best Management Practices for the Construction Industry



Alameda Countywide
Clean Water Program
A Consortium of Local Agencies

Storm Drain Pollution Prevention: It's Up to Us

In Alameda County, storm drains flow directly to local creeks and San Francisco Bay, with no treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. Common sources of this pollution are oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain.

The County and its 14 cities have joined together with Alameda County Flood Control and Water Conservation District to educate local residents and businesses and fight storm drain pollution. We hope you will join us, by using the practices described in this pamphlet.

Who should use this brochure?

Vehicle and equipment operators
Site Supervisors
General Contractors
Home builders
Developers

Urban Runoff Control Program

The County and its cities have all Ordinances for "Storm Water Management and Discharge Control." In order to comply with state and federal law, these Ordinances prohibit most non-storm water discharges to the storm drain. This includes discharges from outdoor vehicle and equipment washing (except residential car washing). The Ordinance also requires anyone engaged in an activity that might pollute storm water to take all practicable measures to reduce pollutants.

For information on the urban runoff pollution control program in your area, contact:

Alameda Countywide Clean Water Program

www.cleanwaterprogram.com

(510) 749-5840

The State Water Resources Control Board (SWRCB) has issued a General Permit for storm water discharges associated with construction activity. Your construction project may need to be covered under the General Permit. To obtain coverage, you must file a Notice of Intent (NOI). For more information call the State Water Board's Construction Activity Storm Water Hotline at (916) 657-1146.

The Alameda Countywide Clean Water Program gratefully acknowledges Santa Clara Valley Nonpoint Source Pollution Control Program for this brochure concept and design.

Storm Drain Pollution from Heavy Equipment on the Construction Site

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are common sources of storm water pollution. Soil excavation and grading operations loosen large amounts of soil that can end up in storm drains if not handled properly. Soil erodes during construction due to the forces of wind and water unless controlled. Some of the most effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams or roughened ground surfaces.

For more information on controlling erosion see A.B.A.G.s "Manual of Standards for Erosion and Sediment Control Measures."

What Can You Do?

Prevent spills and leaks, isolate equipment from drainage channels, and watch for leaks and other maintenance problems. Remove construction equipment from the site as soon as possible.

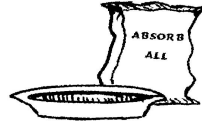
Site Planning and Preventative Vehicle Maintenance

- ☐ Schedule excavation and grading work for dry weather.
- ☐ Train employees in using these BMPs.
- ☐ Designate one area of the construction site, well away from streams or storm drain inlets, for auto and equipment parking, refueling, and routine maintenance. Use berms around



- ☐ staging areas to prevent runoff to streams or drainage facilities.
- ☐ Maintain all vehicles and heavy equipment. Inspect frequently for leaks. Repair leaks promptly.

- ☐ Perform major equipment repairs or maintenance at your yard, not at the construction site.



- ☐ If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all used fluids, store in separate containers, and recycle whenever possible. Do not mix different types of fluids or they may not be recyclable.

General Business Practices

- ☐ If equipment is washed on-site, prevent wash water from entering a storm drainage facility. Direct wash water to low point where it can infiltrate or evaporate.
- ☐ Store all materials away from creeks and storm drains.
- ☐ Remove existing vegetation only when absolutely necessary.
- ☐ Recycle used oil, concrete, broken asphalt, etc. whenever possible.
- ☐ Do not use diesel oil to lubricate or clean equipment or parts.

Clean up spills as soon as they happen

- ☐ Never wash down "paved surfaces" where fluids have been spilled. Use dry cleanup

methods (absorbent materials, cat litter, and/or rags), whenever possible.

- ☐ Sweep up dry spilled materials immediately. Never "wash them away" with water.

- ☐ Clean up spills of hazardous materials on dirt areas by digging up and properly disposing of contaminated soil.



- ☐ Keep a stockpile of clean-up supplies on-site and readily accessible.
- ☐ Remove any contaminated soil from the construction site to an appropriate disposal facility.



This brochure is one of a series of pamphlets describing storm drain protection measures for specific types of construction industry activities. Other pamphlets include:

General Construction and Site Supervision
Painting and Application of Solvents and Adhesives
Fresh Concrete and Mortar Application
Roadwork and Paving

